FINANCING URBAN INFRASTRUCTURE IN RUSSIA: PRACTICAL APPROACHES TO MULTI-YEAR MUNICIPAL BORROWING

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EXECUTIVE SUMMARY

The Role of this Report in the HSRP Infrastructure Finance Program

This report is written at the end of the successful first year of work on the Infrastructure Finance Program, which is part of USAID's Housing Sector Reform Project (HSRP II). HSRP II is contracted to the Urban Institute, and its Infrastructure Finance component is subcontracted to Research Triangle Institute.

Based on the experience of the Infrastructure Finance team over the past year, this report offers practical suggestions to help Russian municipalities understand and obtain multi-year financing of infrastructure projects. It is oriented mostly toward municipalities that may wish to consider inviting our Program to assist them in the pursuit of such multi-year financing of infrastructure. As a brief general guide to this topic, it might also be helpful to local officials who may proceed on their own toward long-term financing of infrastructure.

As such, this report fulfills the requirement of our first-year workplan for a paper on guidelines for use by municipalities, banks, and utilities on long-term infrastructure finance in Russia. A subsequent "how to" manual on long-term financing of urban infrastructure projects is indicated in our second-year workplan. That report, to be published early in 1997, is expected to present a more comprehensive perspective on multi-year financing of infrastructure in Russian municipalities.

Major Steps in Multi-year Project Financing

This report outlines each of the major steps that a municipality should take in seeking multi-year financing for an infrastructure capital improvement project:

- **Project specification:** Identify the project that offers the greatest promise for multi-year financing, ideally from a prioritized set of projects reflecting carefully considered municipal needs and resources during the next few years;

- **Review of project size and scope:** Review the scope and size of the project, meeting immediate capital development needs while seeking to reduce project cost and thus the amount to be borrowed;

- **Project financial analysis:** Analyze the financial implications of the project for the city and its municipal enterprise, concentrating on the city's ability to meet loan repayments, preferably from project-generated revenues; and

- **Project financing:** Assist the city in its pursuit of adequate financing for the project, and advise the city in its discussions and negotiations with potential lenders.

Rapid Assessment Visits to Interested Municipalities

The Infrastructure Finance team is prepared to carry out a rapid assessment visit to any municipality that is interested in exploring the possibility of seeking multi-year financing of an prospective infrastructure project. If a municipality is prepared to recommend a particular infrastructure project for multi-year financing, much of the basic work of project identification, design review, and financial analysis could be completed during a three-day visit to the municipality. With the cooperation of local officials, it is possible that such a visit can specify the project to be financed, review and refine its design, and produce appropriate financial projections for examination by local officials.

Conditions for Fast Progress Toward Project Financing

The pace at which our technical assistance can progress in a given city depends largely on the municipality itself. Under certain conditions, the work can move very quickly. First, if local officials have already selected a specific, well-designed project for multi-year financing, we can move quickly to the financial analysis stage of our work. Second, the structure of the financial analysis may be quickly and confidently established if two conditions are met: (a) if local officials are prepared to help us to understand certain aspects of their institutional arrangements and budgetary processes, and (b) if the necessary data are readily made available on selected budgetary outcomes as well as on project characteristics.

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INTRODUCTION

Program Objectives and Activities

Our program provides technical assistance and training to help Russian municipalities (and oblasts and raions) pursue multi-year debt financing for housing-related infrastructure projects, which are generally no longer being financed by the central government. Our major objective is to help individual municipalities to understand and obtain multi-year debt financing for such projects, either through domestic bank loans or municipal bonds. Implicit in this objective was at least partial repayment of multi-year loans through tariff reform, which would also improve cost recovery of municipal enterprise utilities.

Our approach is to quickly review the basic design of a prospective project with an eye toward economizing on project size and the amount to be borrowed. Once project cost and construction time have been established, we calculate loan repayment burdens and discuss with local officials how much the city could afford to repay from its projected budgets. At this point, we demonstrate how tariff increases can relieve some of the strain of budget-based repayment while also improving cost recovery.

Once a municipality understands its repayment obligations under a multi-year loan and decides to seek such project financing, we will continue to advise municipal officials in their discussions with banks or with municipal bond advisors.

Purpose of this Report

This report outlines a series of activities that, if undertaken seriously by a municipality or oblast, should greatly improve the likelihood that the right project may be designed, proposed, and ultimately financed. It has been prepared specifically for the benefit of Russian municipalities, based primarily upon the experience of the HSRP Infrastructure Finance team, which has worked in some depth with five Russian municipalities[1] to date and has had informative interviews with another half dozen, some of which we hope to work with in the near future. As such, this paper is intended to address the practical needs of Russian municipalities, not simply to reiterate textbook rationales for the implementation of certain procedures. To the extent that the standard approaches seem to offer needed guidelines to Russian municipalities, however, these arguments are included here.

MAJOR STEPS IN MULTI-YEAR FINANCING OF INFRASTRUCTURE PROJECTS

Project Specification, Analysis, and Financing

In general, our work with Russian municipalities involves a four-step process:

- **Project identification:** Identifying the project to be financed;

[1] Nizhni Novgorod (in collaboration with Nizhni Novgorod oblast administration), Vladimir, Ryazan, Pskov, and Sudogda raion administration (in collaboration with Vladimir oblast administration).

- **Review of project size and scope:** Seeking an affordable project that fits immediate capital development needs;

- **Project financial analysis:** Analyzing the project's financial implications for the city and its municipal enterprise; and

- **Project financing:** Assisting the city in its pursuit of adequate financing for the project.

Project Specification

■ **Starting with the right project.** Our Infrastructure Finance program offers technical assistance to Russian municipalities in the pursuit of multi-year financing of infrastructure projects. This might require merely that an individual city designate a particular project for which it wishes to seek multi-year financing. However, since the financial costs of project loan repayment are quite substantial, and the city's borrowing effort itself is not insignificant, project identification should not be treated as a trivial matter.

More importantly, the city's limited borrowing (and repayment) capacity severely restricts the number desirable projects for which it can successfully borrow during any period of time. This argues that the project to be financed be the one yielding the greatest return to the city per ruble of investment; otherwise, financing should be sought for another project offering higher net returns.

Accordingly, our discussion of project identification and specification offers some straightforward suggestions for up-grading the process by which most Russian municipalities determine those capital projects that they will implement, some of which must rely upon external financing. These ideas center around the concept of the capital improvements program (CIP), which is a regular process of rather rigorously reconsidering the character and priorities of a city's proposed list of future capital projects. While only a cursory treatment of this topic, our discussion is intended merely to highlight the desirability of strengthening the capital planning process as it appears to exist in Russian municipalities today.

■ **Context of project specification.** The specific project that is targeted for multi-year borrowing should be determined in the larger context of the city's overall capital improvements program (CIP), as discussed below. From the list of prioritized capital projects, top-ranked projects yielding long-term benefits but requiring several years to complete should be considered for long-term financing, if funding is not available from another source. Those projects that are designated for multi-year financing should be so selected based on the city's anticipated ability to meet the expected debt service payments, be it from city budget revenues, project-generated revenues, or outside subsidies.

Although most Russian municipalities commonly have a "wish list" of projects that they would like to complete, this is not as useful a guide to action as is the capital improvements process outlined below.

- Since such potential municipal projects may have been designed some years in the past, they often do not reflect the current realities that have arisen in the transition to a more market-based economy. Changing demographic patterns or industrial conditions may have by-passed the needs that were seen at the time such designs were drawn up. Improving technologies and greatly increased input costs (especially for energy) may well have made older capital technologies obsolete. Emerging market forces may require substantially different capital installations than were envisioned during a previous era. Even a partially-completed project may

no longer best serve the public interest—or be as cost-effective—as might a newly-designed project that would better reflect today's programmatic and economic realities.

- The city's backlog of desirable projects might also not have benefitted from the more rigorous examination of project benefits and costs that is part of the process of annually evaluating and up-dating the municipality's capital improvements program. Even a purely qualitative annual review of prospective capital projects by a regular panel of local officials might well downgrade the priorities of some long-sought projects. In all likelihood, such regular annual reviews of long-term capital needs would also identify newly emerging project requirements that might not have been identified by more informal programming of capital development.

- Finally, introduction of a more regular capital programming process would itself likely increase the standard to quantitative evaluation of projects that are eligible for active pursuit by the city. Prioritization of projects based in part (but only in part) on objective criteria of project cost and payoff would generate support for a more analytic approach to capital improvements decision making. While even the most technically sophisticated city hall would not simply turn capital project selection over to the computer, introduction of more quantitative criteria of project selection could surely improve the caliber of the debate in municipalities great and small.

■ **Prioritizing projects through a capital improvements program.** A capital improve-ments program (CIP) seeks to rationalize capital improvement planning over several future years by recognizing the totality of a city's capital development needs and the resources that will likely be available to meet those needs. This may include such considerations as the following.

- Devise a multi-year capital improvements program for the future development of the city, presented in financially realistic terms that acknowledge the inter-relatedness of various capital projects.

- Prioritize these projects in the annual CIP, incorporating any available estimates of quantitative returns of each project in conjunction with qualitative judgments of how each project contributes to the overall capital improvements program. Up-date the CIP annually to reflect changing circumstances.

- Match project needs with the resources that are likely to be made available for capital development purposes, thus keeping a financially realistic perspective on the city's longer-term capital planning.

A capital improvements program is unlike the former five-year plans. The capital planning itself is purely local in nature, and the project funding must now be mobilized largely by the municipality itself. In that sense, the CIP should include only projects for which financing is realistically likely—either from current budgets, foreseeable subsidies, or borrowing (with adequate provision of debt service payments). To maintain a sense of reality, it might even be desirable to differentiate projects for which such funding is reasonable well-assured from those for which it is merely possible but less likely.

■ **Selecting the preferred project(s) for which financing is desired.** The number of high-priority capital projects requiring multi-year loans can greatly exceed a city's ability to service all such loans. As will

be noted below, one might well begin with a small, simple project that can form the foundation for larger, more complicated efforts later on.

The good judgment of local officials is often the best basis for choosing which projects should be highly rated for early implementation. Although quantitative comparisons of projected project outcomes can inform the qualitative judgment of experienced local officials, final implementation decisions should usually not rest on quantitative estimates alone. Measures such as a project's internal rate of return or benefit-cost ratio may help to roughly prioritize numerous projects, but they can be very susceptible to their underlying assumptions. Especially in the early stages of transition to market-oriented capital development planning, qualitative judgment is important in acknowledging the inter-relationships among various projects.

Review of Project Size and Scope

It is often very useful to review the size and scope of the specified project once it has been selected for multi-year financing. This review should better be seen as a general review of the scope and character or the project, rather than an engineering review of project specifications.

A review of the nature, scope, technology, etc., of the proposed project is especially important with projects that were not designed in the last year or so. Major increases in energy costs alone could easily convert a formerly promising project into a potential financial disaster for the city and/or its municipal enterprise. Moreover, technical innovations that were unknown to design institutes only a few years ago may well offer much greater operating efficiency than did the original design. Even if the original technology is to be incorporated, the staging of a project over several years, as noted above, might well make the initial project loan significantly more affordable.

Significant economies may often be devised in the selected project by reviewing its nature, scope, technology, costs, timing, interrelatedness to other projects, etc., before doing a financial analysis of anticipated project outcomes. Any reductions in proposed project cost will translate into lower levels of regular loan repayments, thereby making the entire enterprise more affordable for the city. In a sewage treatment project, for example, it might be possible to construct only that portion of a planned facility that would be needed immediately, perhaps delaying for some years the completion of additional capacity that might be required in a decade or so but for which no expenditures need be made now. Such subsequent construction might then be partially paid for through the potential contributions of new industrial firms that are not now foreseen, or the cost of multi-year financing might well be lower in the future.

Reviewing the nature and scope of the proposed project also permits a fresh look at the possibilities for generating additional revenues from the project itself. Depending upon the nature of the project, such additional revenues could arise (a) from totally new user fees or charges (as with a toll bridge that had been free of charge before its reconstruction), or (b) from tariff reform of the previously existing schedule of fees and charges (as with higher charges for access to the clean water produced by a new water purification plant). The rationale for tariff reform is discussed below in conjunction with financial analysis of a prospective project.

Project Financial Analysis

■ **Computer software for infrastructure finance analysis.** The above considerations notwithstanding, the primary component of the technical assistance provided by the Infrastructure Finance

team is a financial analysis of the proposed project. This analysis highlights the city's ability to repay the proposed project loan, so as to help the city decide whether it can afford to undertake such a loan for the prospective project.

Our own financial analysis package offers a wide range of alternatives from which to choose in structuring a prospective project loan. It was specifically designed on an Excel spreadsheet for this particular infrastructure finance application, and we have modified and improved the package as we have learned more about the borrowing needs of Russian municipalities.[2]

■ **A hypothetical example.** Tables 1 and 2 present a simple example of one such financial analysis, based on a R20 billion bank loan to a hypothetical municipality. During year 1 of the project, the municipal budget is assumed to be R130 billion, and the budget of the municipal enterprise for which the project would be constructed is assumed to be R10 billion.

Table 2, Debt Financing, specifies a wide range of variables that may affect the financial outcomes.[3] Each of the variables listed in Table 1 can be specified to fit individual economic, financial and project circumstances. These variables include:

- Project characteristics (project cost, construction period, anticipated savings as a result of the project, and anticipated additional operating costs as a result of the project);
- Proposed loan characteristics of a project bank loan or municipal bond (principal amount, type and terms of the loan or municipal bond, and allocation of any construction fund interest to loan repayment;[4]
- Other revenues (here, application of revenues from a prescribed tariff increase to loan repayment); and

Table 1
Debt Financing

Project Features		
Project Cost	US$3,571,429	R20.0 billion

[2]Although any such financial calculations of loan repayments are, of course, based on standard financial formulas, many different approaches to such presentations are possible. Several software programs may be purchased commercially for this purpose, and most financial advisory firms (such as those that advise cities on the issuance of a municipal bond) may also have devised their own financial analysis software.

[3]So as to facilitate its use, Table I is presented in both Russian and English, as are all the output tabulations in the spreadsheet itself. Presentation of particular tabulations of financial outcomes, such as Table 2, can easily be drawn up in either language.

[4]Although the example illustrates the case of a purely domestic loan, the spreadsheet also contains an international loan component, denominated in U.S. dollars, that can calculate a loan with any desired ruble-dollar mix. For example, calculations for both a 3-year, R20 billion domestic loan could be combined with a 12-year, $17.9 million (roughly R100 billion) loan from an international donor agency, in order to include domestic participation with a longer-term loan that is better suited to infrastructure capital finance.

Project Revenues	
Construction period	R3.0 billion
Project savings/revenues	R1.0 billion
Operating Costs	
O&M as percent of project cost	0.00%
First year operating costs	R0.0 billion
Annual escalation	0.00%
Local Loan (Issue)	
Structure	
Amount:	R20.0 billion
Term	3.0 years
Real interest rate	70.0%
Spread (% loan - % construction fund)	50.0%
Payments per year	4
Issuance cost, percent of total amount	0.0%
Apply construction fund interest to debt payment	Yes
Other Revenues	
Tariff increase, percent of sales	10.00%
Number of years effective	3
When introduced, years from start of project	0
Ruble Inflation Rates	
Year 1	25.0%
Year 2	25.0%
Year 3	25.0%
Year 4-6	25.0%
Year 7	25.0%
Exchange Rate	
Ruble/US$ current exchange rate	5,600

- Ruble exchange rate and annual inflation rate of the ruble.[5]

Building upon the project and loan characteristics specified in Table 1, six different financial scenarios are compared in Table 2:

Table 2
Comparison of Repayment Obligations under Various Financial Assumptions
R20 billion Project, 3-Year Loan, 70 Percent Real Interest Rate* (all monetary amounts in billions of rubles)

Gross repayments, without additional financial measures	Less: Additional measures that may contribute to loan repayment	Net repayments

[5]The spreadsheet program also allows for the specification of foreign exchange rates, if there is to be an international loan component denominated in U.S. dollars.

Year	Annual principal payment	Annual interest payment	Annual total debt service	Construction fund interest	Net revenue from project savings	Tariff surcharge	Percent of city budget revenues (minus = savings)
Scenario 1: No loan (project cost paid in Year 1 from current city budget)							
1	20.00						15.38%
2							
3							
4							
Scenario 2. Basic loan (no additional financial measures applied to loan repayments)							
1	6.67	12.72	19.38				14.91%
2	6.67	7.86	14.53				8.94%
3	6.67	3.01	9.67				4.76%
4							
Scenario 3. Project savings (R1.0 billion in Year 1 prices) applied to loan repayments							
1	6.67	12.72	19.38				14.91%
2	6.67	7.86	14.53				8.94%
3	6.67	3.01	9.67				4.76%
4					1.95		-0.77%
5					2.44		-0.77%
Scenario 4. Construction fund interest (loan rate less 50 percentage points) applied to repayment							
1	6.67	12.72	19.38	7.14			9.41%
2	6.67	7.86	14.53	4.42			6.22%
3	6.67	3.01	9.67	1.70			3.92%
4							
Scenario 5. Tariff surcharge (10 percent of municipal enterprise revenues) applied to loan repayments							
1	6.67	12.72	19.38			1.00	14.14%
2	6.67	7.86	14.53			1.25	8.17%
3	6.67	3.01	9.67			1.56	3.99%
4							
Scenario 6. All three additional financial measures applied to loan repayments							
1	6.667	12.716	19.382	7.143		1.000	8.65%
2	6.667	7.861	14.527	4.422	1.953	1.250	5.45%
3	6.667	3.005	9.672	1.701	2.441	1.563	3.15%
4							-0.77%
5							-0.77%

* For this illustration, hypothetical year 1 revenues are R130 billion for city budget and R10 billion for municipal enterprise.

(1) If there is **no loan**, project cost to be paid in year 1, from current city budget only;

(2) The **basic loan** will be repaid, with no additional financial measures to be applied to loan repayments;

(3) **Project savings** (initially, R1.0 billion in year 1 prices) will be applied to loan repayments, to begin at the end of the 3-year construction period;

(4) **Construction fund interest**, a commonly used arrangement (here set at 50 percent below the nominal loan rate) will be applied to loan repayments;

(5) A **tariff surcharge** (set at 10 percent of municipal enterprise revenues) will be applied to loan repayments;

(6) Finally, **all three additional financial measures** together will be applied to loan repayments.

Table 2 above presents the results of these various repayment outcomes. Gross repayments, without any additional financial measures, are shown in three columns on the left side of the table. Respective reductions from these gross repayments, corresponding to each of the various additional financial measures outlined above, are shown in the three columns in the middle of the table. The right-hand column summarizes these net loan repayments as a percent of city budget revenues. This is an indicator of the relative burden of each alternative arrangement on the city budget. The results of each of these six financial arrangements are as follows:

(1) **No loan.** The "net repayments" column shows that paying for the R20 billion project solely from current budget funds would absorb 15.38% of city budget revenues during Year 1.

(2) Taking only the 3-year **basic loan**, the Year 1 repayment would be nearly as much (14.91%) as without any loan, although repayments would significantly diminish in Years 2 and 3.

(3) **Project savings** does not affect loan repayments, but it does generate meaningful savings that begin as soon as the project is implemented.

(4) **Construction fund interest** would greatly reduce net repayments in all three years, cutting the repayment burden to only 9.41% in year 1, with commensurate reductions in subsequent years.

(5) The modest **tariff surcharge** would also reduce the net repayment burden, but only by less than 1 percent from that of the basic loan.

(6) **All three additional financial measures**, taken together, would dramatically reduce the net repayment burden—to 8.65% for year 1, which is 42 percent lower than that of the basic loan.

The list of variables in Table 1 indicates the wide range of combinations of project and loan characteristics that may be specified for each individual situation. Similarly, the format of financial outcomes may be designed in the manner that best fits each individual circumstance.

■ **Tariff reform: a special concern.** One topic deserving special attention here is tariff reform, which, as shown, is easily modeled in our financial analysis package. In the Russian municipal context, tariff reform would rationalize the schedule of user charges for a public service (heating, water-and-sewer service, etc.) so as to raise tariff levels for a particular utility closer to the actual cost of providing that service.

Tariff reform is justifiable from the perspective of both current expenditures and capital expenditures. In terms of current expenditures, many communal services in Russian municipalities are presently recovering

no more than 30 percent of their reported operating costs. So as to reduce this burden on municipal budgets, it is therefore desirable to consider tariff increases that would improve the overall level of operating cost recovery. In terms of capital expenditures, moreover, it is reasonable that future consumers of long-term project benefits would also contribute commensurately to paying the costs of the project that provided them with such benefits in the first place.

Accordingly, all or part of a prospective tariff increase could be allocated to repaying at least a portion of the project loan. Even modest tariff increases could contribute to the repayment of a city's loan repayment burden on an urban infrastructure project.

Basic Data Requirements for Analyzing an Urban Infrastructure Project

To carry out the above project design reviews and financial analysis, information is needed both on the prospective project and on the financial circumstances of the municipality and its municipal enterprise for which the project would be implemented. If accurate, comprehensive and complete information is made available to the Infrastructure Finance team at the very beginning of its consultations with the municipality, the necessary inquiry and calculations can be completed rather quickly. Such work will help the municipality decide whether to seek multi-year financing of the proposed project. Subsequent discussions can then focus on the best ways to borrow the needed funds.

Table 3 constitutes a general guide for assembling the needed information on the project, the municipality, and the municipal enterprise. Such a listing can be only a basic outline of the needed information. Nonetheless, it provides a fairly complete picture of the type and quality of information that is needed for a comprehensive assessment and analysis of the proposed project and its prospective multi-year financing.

Table 3
Basic Information Needed for design Review and Financial Analysis of an Urban Infrastructure Project

Project description (qualitative and quantitative)
- Purpose of the project
- Description, size and location of the project
- Indicators of improved public service output:
  - — Increased gigacalorie output of heat
  - — Extent of improvement in water quality
  - — Number of additional residences or business served, etc.
- Identification of project beneficiaries (direct and indirect)
- General contribution of project to the city

Alternative project formulation(s)
- Brief description of possible smaller, alternative formulation(s) of the project

Project costs, schedule, savings, and revenues
- Overall project cost, and amount to be borrowed
- Schedule of construction spending
- Any additional operating and maintenance costs of project
- Any cost savings to be generated by project
- Tariff reform: Any additional revenues to be generated as a result of project

Institutional financial performance
- City budgets (outcomes from last 3 years, and next year's budget)
- Municipal enterprise budgets (outcomes of last 3 years, and next year's budget)
- Tariff history (rate history for last 3 years, for each separate class of customer)
- Arrearages and outstanding obligations (debts) owed to municipal enterprises:
  - — For last 3 years, by each class of customer
  - — For each major local industrial enterprise with a history arrearages.

Proposed sources of project funding
- (City budget, tariff increase, one-time assessment fees, subsidies from higher authorities, etc.)

Project Financing

■ **The role of our program in project financing.** Our program provides advice on project financing (as described above) and assistance in identifying and arranging for project financing. In the latter capacity, we do not lend money ourselves. Neither do we advise on the lending of any U.S. Government agency, international donor organization, private bank, or other domestic or international commercial lender or agent.

Rather, our program seeks to identify potential loan funding for prospective municipal projects, primarily from Russian domestic sources. These sources are principally municipal bonds for larger projects, and bank loans for smaller projects.

Once a municipality has decided to seek multi-year financing for a proposed project, we provide assistance in identifying potential lenders—such as banks or municipal bond dealers, agents, and

advisors—that might be finance the proposed project. We also stand ready to provide continuing advice to the municipality throughout its discussions with these potential lenders and other organizations that may assist them in obtaining a loan or issuing a municipal bond.

■ **Loan documentation and municipal creditworthiness to increase lender interest.** In a municipality's discussions with potential lenders, the city should make the most of its advantages in the competition for funds. If the city makes a strong case for the proposed project and loan, lender interest in making such a loan will increase. If the city makes its case to several lenders, not just one, the resulting competition among lenders could significantly improve the terms of the loan. Interest rates might be reduced, the loan period might be extended, a higher rate might be offered on construction fund interest, a grace period might be introduced in repayment of loan principal, etc.

Good loan documentation is important in seeking a loan, especially in approaching a lender with which the city has not done business before. Such situations will become increasingly common as banks become more interested in municipal lending. Table 3 provides a sound basis upon which to good documentation may be built.

A record of creditworthiness is important in seeking all future loans. In addition to good documentation, an established record of the city's history of timely repayment of any previous loans will increase lender confidence that future loans will be fully repaid on time. Many municipalities borrow simply for cash flow purposes during a current year. However, a multi-year capital improvement loan can be more of a challenge to both borrower and lender alike, since it obligates repayment from a sometimes less-predictable flow of future revenues. In that regard, even a small multi-year loan can begin, or add to, the accumulation of just such a record of municipal creditworthiness. Once a good repayment record has been established with one such loan, it is easier for the same lender—or different lenders—to consider an even larger multi-year loan.

■ **Obtain the best loan terms by seeking competitive offers.** Before closing with some remarks on bank loans and municipal bonds as sources of financing, it is worth emphasizing the importance of using market competitive forces of obtain the best possible loan terms for either a bank loan or a municipal bond.

In considering multi-year bank loans, municipal officials often seem to prefer to deal only with the one or two banks from which they have acquired short-term loans in the past. This is natural and understandable, as it ensures familiar working relationships and, it is hoped, a favorable reception to the city's proposal. It does not, however, ensure that the forthcoming loan, if offered, will carry with it the best financial terms for the city.

The best terms can generally be established only by shopping around to different potential lenders, making no secret of the city's intention to find the best possible terms before closing the deal. One bank may offer a lower interest rate, a longer loan period, a grace period on repayment of principal, better arrangements for the construction fund, etc. Alternatively, the city might well solicit such improved terms. If such better terms are proposed by one lender, the municipality can simply ask other, competing lenders to match, or better one or more of these terms.

Although this procedure might put pressure on the previously warm relationships that may have existed between the individuals represent the city and its potential lenders, all parties must recognize that the city's ultimate interest is in acquiring the most affordable terms on the prospective loan. Once the

lenders acknowledge that perspective by their continued participation in the competition for the city's loan business, good relations will generally proceed as before.

This principle of competitively seeking the most affordable arrangements for the prospective loan applies equally to bank loans and to municipal bond offerings. The city's "regular" bank may be the most familiar, but better terms might be offered by other local banks or even by banks located elsewhere, perhaps as a means of expanding their business to a new municipal customer. The same may be said of the various financial advisors who would assist the city in issuing municipal bonds. Lower commissions might be negotiated from some municipal bond placement agents, for example, or a more efficient legal advisor might well be able to do the needed work more quickly for lower overall cost.

■ **Bank loans versus municipal bonds.** Administratively, of course, it is much easier and much less costly to obtain bank loans than to issue municipal bonds. The borrowing process is significantly quicker and more familiar, the uncertainties of actually acquiring the needed funds are resolved much sooner, the administrative arrangements are much easier to understand and anticipate, the personalities themselves are generally more well known to local officials, etc., etc. Municipalities usually obtain bank loans from local banks, with which they already enjoy well-established working arrangements, and whose officers are generally well-known by city officials.

For all the above reasons, bank loans are generally preferred for relatively smaller municipal borrowings. Larger amounts of principal, however, are often difficult to obtain from one or even an informal consortium of banks. Some Russian banks, however, are reluctant to consider municipal loans of longer than one year, and many are unfamiliar with the special circumstances affecting capital loans—as opposed to short-term loans to cover current budget-deficits.

Cities may borrow on the open market to obtain needed long-term capital funds, issuing municipal bonds in the manner that has long been common in Europe and America. Municipal bonds are the usual form of major multi-year municipal borrowing for capital purposes. Municipal bond issues may be designed to acquire the needed funds by attracting the capital of small as well as large investors. As the market matures for municipal debt, municipal bonds also become more attractive because they may be resold on an active secondary market.

Municipal bonds would generally support larger capital borrowings, beginning at about the 10 billion ruble level. Administrative costs of arranging a domestic municipal bond issue of that size might equal as much as 7 percent of the amount to be raised. This percent would diminish as the value of the issue increases. This general cost of issuance is also likely to fall over time, as cities accumulate records of creditworthiness, and as financial service firms and related institutions become more efficient in carrying out this work.

While Russia's larger cities are presently hoping to issue municipal bonds in the international capital market, this new departure is not soon likely to be a significant source of loan funds for the vast majority of Russian municipalities. The larger cities may be capable of attracting some international funds because of their greater exposure to international business and their growing attractiveness as markets for foreign products and services, and as sites for foreign investment. Other Russian cities that are potential locations for early foreign private investment might also seek loan funds from foreign sources during the next few years. Most Russian cities, however, are probably not yet ready to seek longer-term loans from international private sources. In order to do so, they may need first to consider some of the practical approaches to multi-year municipal borrowing that are discussed in this paper. These approaches should include preparation

of realistic capital improvement programming of feasible projects; identification of sufficient project-related revenues to assure timely loan repayment; and preparation of good documentation on the proposed project, loan repayment prospects, and municipal credit history.

CONCLUSION

This paper provides a basic discussion of the major steps that a municipality can take in preparing for, and then seeking, multi-year financing for an infrastructure capital improvement project. It is intended largely to help local officials make the most of the technical assistance that is offered in that regard by our Infrastructure Finance program. Nonetheless, as a general guide to this topic, it might also be useful to local officials who may proceed on their own toward long-term financing of infrastructure.

The paper concentrates on the specification, analysis, and financing of infrastructure projects —an approach that can also be applied more generally to a wide range of capital projects. It stresses the importance of selecting the prospective project from a list of possible projects that have been prioritized according to community needs and resources, relying on officials' qualitative judgments as well as on quantitative information. Once a project has been tentatively identified for multi-year financing, it is often useful to review its size and scope, seeking to economize on project cost and thereby on the amount to be borrowed. The subsequent financial analysis may then explore ways to reduce the required repayment burden while focusing on the municipality's ability to service the debt. Important considerations here include the likelihood of repaying the loan from project-generated revenues, including those from higher tariffs. Once the affordability of the proposed project loan has thus been established, the most advantageous loan terms can be obtained by seeking competitive offers from several potential lenders.

Multi-year municipal borrowing for capital projects is a new idea for Russia that may take a while to be widely accepted. Municipalities often wish to avoid multi-year borrowing for capital projects, hoping instead to cover the cost solely from the current budget. If budgetary funds are insufficient for this purpose, then a multi-year loan may then be the only way to finance the project and its long-term benefits. Moreover, generally low rates of cost recovery in many municipal enterprises mitigate against self-financing capital projects. Therefore, local officials may often avoid those tariff increases that would generate enough additional revenue for a project to meet its required principal and interest payments.

Nonetheless, there is a large unmet need for the long-term funding of infrastructure projects in Russian municipalities. Multi-year loans, from domestic banks or municipal bonds, are an appropriate response to this growing demand for municipal capital finance. This paper presents some basic steps that can help municipalities prepare for and pursue such long-term financing. Those communities choosing to do so in the near future will soon be looked upon as the leaders in this new area of Russian municipal finance.